

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows.

On page 13, please replace the paragraph that starts on line 27 and ends on page 14, line 18, with the following amended paragraph.

Figure 5 illustrates a close-up view of a portion of a cross-section of an alternative embodiment of air filtration system 10. Air filtration system 10 of Figure 5 is similar to the air filtration system 10 illustrated in Figure 1 in that air filtration system 10 has an inlet 12 at the upstream end of air filtration system 10 with air flow through air filtration system 10 in a downstream direction through optional entrance grille 28, point ionization source 18 (only one shown in Figure 5), ion trap 20, particulate collection surface 22, optional fan 26 and optional exit grille 30. However, the embodiment of air filtration system 10 illustrated in Figure 5 additionally includes an air flow channel 32 which directs air in an upstream direction across or by point ionization source 18. Such an air flow channel may be constructed in any manner either internal or external to the air flow channel of air filtration system 10. Such an air flow channel may utilize air passing through the air flow channel of air filtration system 10 or may utilize air from a separate source. In a preferred embodiment, a portion of the air flow channel of air filtration system 10 is walled off by wall 34 to funnel a portion of air drawn through the air flow channel back upstream and directly past point ionization source 18. Since air taken from the downstream side of particulate collection 22 is under pressure with respect the ambient air pressure of the room in which air filtration system 10 is located, air may pass[[ed]] upstream past point ionization source 18 without additional mechanical assistance. Of course, it is to be recognized and understood that other mechanisms of passing air over point ionization source 18 in an upstream direction are envisioned including those utilizing a separate source of mechanical assistance. Air passing over point ionization source 18 helps to not only disperse ions in an upstream direction from inlet 12 but, perhaps even more significantly, aids in preventing the build-up of particulate matter on point ionization source 18 keeping point ionization source 18 clean and more efficient.